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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,955	07/28/2003	Sanjiv Nanda	030280	6170
23596 7590 02/02/2009 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER				
CAL WAYNE HUU				
ART UNIT		PAPER NUMBER		
2617				
NOTIFICATION DATE		DELIVERY MODE		
02/02/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary

Application No.

10/628,955

Applicant(s)

NANDA ET AL.

Examiner

WAYNE CAI

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed November 18, 2008 have been fully considered but they are not persuasive.

The Applicant argues at page 15 that Berruto describes situations wherein the rate and protection requirements of different streams of information are determined. These requirements have nothing to do with determining a transmission deadline. The Application further argues at the second paragraph of page 16 that Berruto does not expressly or implicitly show determining a transmission deadline and cannot do so because the information to be transmitted is not in packets. The Examiner respectfully disagrees.

It is important to note that the Examiner did not rely on Berruto for teachings of "determining a transmission deadline". Rather, on page 4 of the Non-Final Office Action dated July 18, 2008, the Examiner cited and relied on column 7, lines 21-29 of Shiobara for the teachings of "determining a transmission deadline of the packets of data." Hence, previous rejections were still maintained.

All dependent claims depend either directly or indirectly upon independent claims 1, 9, 16, 24, 31, and 39 are also rejected at least for the same reasons set forth above.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on September 24, 2008 was filed after the mailing date of the Non-Final Office Action on July 18, 2008. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 5, 6, 9, 11, 14-17, 20, 21, 24, 26, 31, 32, 35, 36, 39, 40, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berruto (EP 0 627 827) in view of Shiobara (US 5,535,214). Note: Applicant's cited references.

Regarding claims 1, 16, 31, and 39, Berruto discloses in a communication system, an apparatus for determining a data rate for reverse link communication from a mobile station to a base station comprising:

means for determining packets of data for transmission from the mobile station for a number of communication services (paragraph 0011, paragraphs 0017-0018);

means for determining a data rate for transmission of the packets of data based on the arrangement of said packets of data in said queue allowing for meeting the

transmission deadline for each of said packets of data (paragraphs 0012, 0020, 0023 and 0032).

Berruto, however, does not expressly disclose the remaining limitations.

Shiobara discloses timely processing of transmission and reception requests in multi-node communication network. Shiobara also discloses:

means for determining a transmission deadline of each of said packets of data (col. 7, lines 21-29);

means for arranging the packets of data in a queue for transmission in accordance with said determined transmission deadline (col. 7, lines 30-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Berruto and Shiobara.

The motivation/suggestion for doing so would have been to allow effective use of the system resources while able to guarantee service to certain traffic classes.

With further regard to claims 9 and 24, Berruto also discloses determining a number of data rates for transmission of the packets of data based on the number of possible queue arrangements (paragraph 0038).

Regarding claims 2, 17, 32, and 40, Berruto and Shiobara disclose all limitations recited within claims as described above. Berruto also discloses means for communicating said data rate from said mobile station to said base station (paragraph 0019).

Regarding claims 5, 20, 35, and 43, Berruto and Shiobara disclose all limitations recited within claims as described above. Berruto also discloses further

comprising: means for determining whether available resources allows for allocation at said base station for transmission from said mobile station at said data rate (paragraph 0012).

Regarding claims 6, 21, 36, and 44, Berruto and Shiobara disclose all limitations recited within claims as described above. Berruto also discloses means for indicating a congestion level alert to said mobile station when said determining available resources disallow for allocation at said base station for transmission from said mobile station at said data rate (paragraphs 0026 and 0038).

Regarding claims 11 and 26, Berruto and Shiobara disclose all limitations recited within claims as described above. Berruto also discloses communicating said number of data rates from said mobile station to said base station (paragraphs 0010 and 0019).

Regarding claim 14, Berruto and Shiobara disclose all limitations recited within claims as described above. Berruto also discloses determining whether available resources allows for allocation at said base station for transmission from said mobile station at least one of said number of data rates (paragraphs 0012 and 0026).

Regarding claim 15, Berruto and Shiobara disclose all limitations recited within claims as described above. Berruto also discloses indicating to said mobile station when said determining available resources allows for allocation at said base station for transmission from said mobile station at least at one of said data rates (paragraphs 0038-0040).

5. Claims 3, 4, 7, 8, 10, 12, 13, 18, 19, 22, 23, 25, 27-30, 33, 34, 37, 38, 41, 42, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berruto (EP 0 627 827) in view of Shiobara (US 5,535,214), and further in view of Holden (US 6,134,218) Note: Applicant's cited references.

Regarding claims 3, 18, 33, and 41, Berruto and Shiobara disclose all limitations recited within claims as described above, but do not expressly disclose features of this claim.

In a similar endeavor, Holden discloses many dimensional congestion detection system and method. Holden also discloses means for determining duration for use of said determined data rate for transmissions of the packets of data based on the arrangement of said packets of data in said queue (col. 1, lines 59-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine these references altogether.

The motivation/suggestion for doing so would have been to allow effective use of the system resources while able to guarantee service to certain traffic classes.

Regarding claims 4, 19, 34, and 42, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Berruto also discloses means for communicating said determined duration from said mobile station to said base station (paragraph 0012).

Regarding claims 7, 22, 37, and 45, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Holden also discloses means for dropping at least a packet of data of said packets of data in said queue to determine a

new queue of packets of data (col. 9, lines 29-34); means for determining a new data rate for transmission of said new queue of packets of data, wherein said new data rate is lower than said data rate (col. 9, lines 45-55).

Regarding claims 8, 23, 38, and 46, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Holden also discloses means for determining a new duration for use of said determined new data rate for transmissions of the packets of data based on the arrangement of said packets of data in said new queue (col. 9, lines 55 - col. 10, line 9).

Regarding claims 10 and 25, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Berruto also discloses wherein said number of determined data rates include a required data rate (paragraph 0010), and Holden also discloses at least one congestion level data rate (col. 9, lines 4-28).

Regarding claims 12 and 27, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Holden also discloses determining duration for use of each of said determined number of data rates for transmissions of the packets of data based on the arrangement of said packets of data in said queue (col. 1, lines 59-67).

Regarding claims 13 and 28, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Berruto also discloses communicating said determined duration from said mobile station to said base station (paragraph 0012).

Regarding claim 29, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Berruto also discloses determining whether available resources allows for allocation at said base station for transmission from said mobile station at least one of said number of data rates (paragraphs 0012 and 0026).

Regarding claim 30, Berruto, Shiobara, and Holden disclose all limitations recited within claims as described above. Berruto also discloses indicating to said mobile station when said determining available resources allows for allocation at said base station for transmission from said mobile station at least at one of said data rates (paragraphs 0038-0040).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WAYNE CAI whose telephone number is (571)272-7798. The examiner can normally be reached on Monday-Thursday from 8:00 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wayne Cai/
Examiner, Art Unit 2617

/Alexander Eisen/
Supervisory Patent Examiner, Art Unit 2617